SD/HD/3G-SDI to HDMI & VGA & AV Converter

NOTE: The casing design is subject to change without notice.

Our SD/HD/3G-SDI to HDMI & VGA & AV Converter is designed to convert one channel HD-SDI video source to HDMI &VGA & AV displays simultanously. It integrates SDI Cable equalizer and re-clocker and cable driver to enhance video performance and stability.

It supports multiple resolution up to 1920x1080@60HZ and supports the most popular resolutions to ensure high compatibility with wide brands of PC and HDTV. It provides cheaper solution to connect HD-SDI to HDTV and VGA terminal.

Features   :

- Support all type SDI resolution：
- SMPTE424M, SMPTE292M, SMPTE259M-C.
- Carry 1 channel SDI signal loop out.
- Automatically detect the HDMI EDID information adaptive HDMI best mode
- Support all formats asymmetric conversion
- The signal lost blue screen warning
- VGA output support 10 main resolutions
- Automatically embed SDI audio signal to HDMI signal.
- User selectable output format (HDMI and VGA and AV)
- Intelligent adaptation of PAL / NTSC
- Support independent stereo audio output

⚠ **Please read the Manual before attempting to use this product.** *Specifications and appearance are subject to change without notice.*

CAUTION
RISK OF ELECTRIC SHOCK
DO NOT OPEN!

TO REDUCE THE RISK OF ELECTRICAL SHOCK,
DO NOT OPEN COVERS (OR BACK).
NO USER SERVICEABLE PARTS INSIDE.
REFER SERVICING TO QUALIFIED
SERVICE PERSONNEL.

Disposal of Old Electrical & Electronic Equipment (Applicable in the European Union and other European countries with separate collection systems).

This symbol on the product or on its packaging indicates that this product shall not be treated as household waste. Instead it shall be handed over to the applicable collection point for the recycling of electrical and electronic equipment. By ensuring this product is disposed of correctly, you will help prevent potential negative consequences for the environment and human health, which could otherwise be caused by inappropriate waste handling of this product. The recycling of materials will help to conserve natural resources. For more detailed information about recycling of this product, please contact your local city office, your household waste disposal service or the shop where you purchased the product.

Caution

1. Handle this product with care

Avoid any shock or bumping of the product. Improper handling could damage the product. Do not handle the unit with wet hands. Provide proper ventilation and air circulation and do not use near water.

2. Requires a proper operating environment

This product is not waterproof and is designed for indoor use. The allowable temperature range for operation of this product is between –0°C~40°C / 32°F~104°F.

3. Check the power source voltage

The power source voltage should be within the specified range. (Product must meet the specifications).

4. Objects and liquid entry

Never push objects of any kind into this product as this may touch dangerous voltage points of short out parts that could result in a fire or electric shock. Never spill any kind of liquid on the product.

5. Cleaning

Do not use liquid or aerosol cleaners to clean this unit. Always unplug the power to the device before cleaning.

6. Servicing

Do not attempt to service this product by yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all service to qualified servicing personnel.
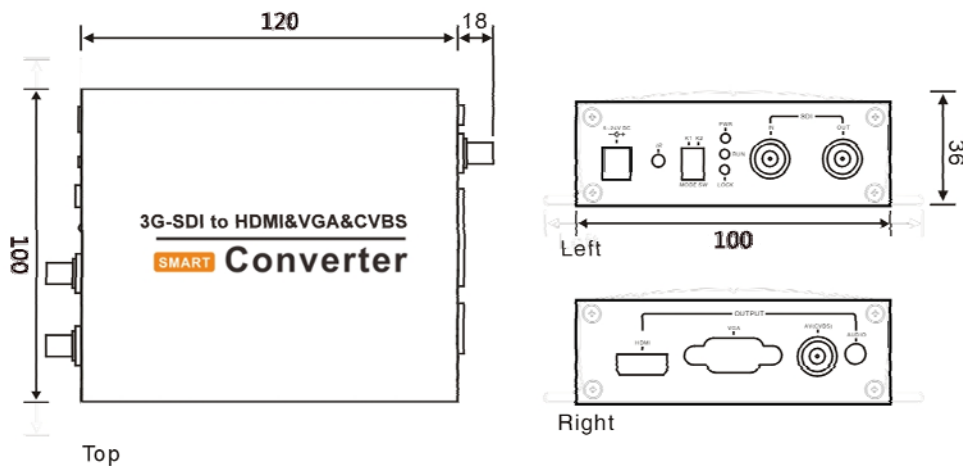
Package Contents .. ..

1. One (1) SDI to HDMI Converter
2. One (1) User Manual
3. One (1) AC Adapter
4. One (1) IR remote control

1.   2.   3.   4.
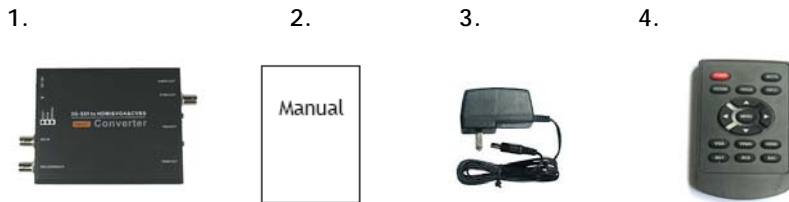
For any returns,please include all components listed above with original packaging in **Resalable** **Condition**. **Absolutely No Returns** will be accepted if any component is missing/damaged.

Parts & Functions .. ..

Left Panel: Right Panel:

1. 5-24V DC : Suggest DC 12V,1A Plug in   6.HDMI out
2. IR : Ir control   7.VGA out
3. K1/k2: Dip swtich   8.AV out
4. Led indicator : PWR /lock/RUN   9. Audio output (Audio speaker)

5. SDI In, SDI loopback

Led indicatgor:

Name	Color	Status	Description
LOCK	Green	ON	SDI signal in
		OFF	Do not detect SDI signal in
Run	Green	Flicking	Device is normal
		OFF	Device is not normal

POWER	RED	Flickerin	Power on
		OFF	Power off

K1/k2 Dip Switch

K1	K2	Function
OFF	OFF	Fit input mode
ON	OFF	720P (HDMI &VGA)
OFF	ON	1080P60 (HDMI &VGA)
ON	ON	HDMI 1080P30 & VGA 1024X768P60

Application Diagram :
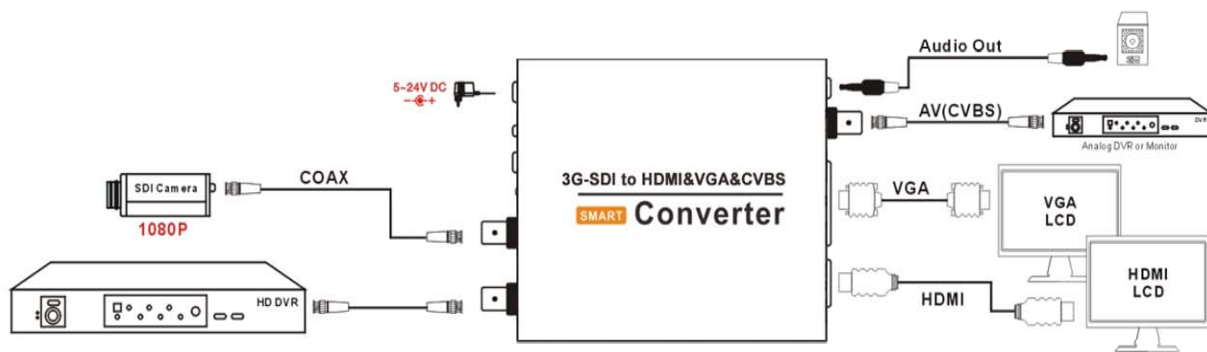
Hardware Installation

1.Check the power supply configuration and connect the correct voltage according to the power supply input requirements.

2.Use the standard SDI coaxal cable and connect the SDI source to SDI input ports.

3.Use SDI coaxial cable, VGA cable, HDMI cable　and connect the AV, VGA ,HMDI ,SDI output port with the display equipment.

4.Turn on the power switch.

Note: This device only support to output two kind signals simultaneously nor Three kinds ef HDMI signal and AV signal or HDMI signal and VGA signal ect.

Specifications :

Model	SD/HD/3G-SDI to HDMI &VGA& AV converter
Input Interface	1x BNC SDI
Input Signal Type	SD-SDI (270Mbps), HD-SDI (1.485Gbps), 3G-SDI (2.97Gbps)
Support Input Format	SD: 525i @ 59.94Hz, 625i @ 50Hz HD: 720p @ 23.98Hz / 24Hz / 25Hz / 29.97Hz / 30Hz 720p @ 50Hz / 59.94Hz / 60Hz 1080i @ 50Hz / 59.94Hz / 60Hz 1080p @ 23.98Hz / 24Hz / 25Hz / 29.97Hz / 30Hz
SDI Signal Range	0.8V p-p
SDI Impedance	75 ohms
SDI Coupling Type	AC Coupling
Max. Input Coax Length	Belden 1694A SD-SDI 400m / 1300ft ; HD-SDI 200m / 600ft ; 3G-SDI 140m / 450ft
SDI Loop Out	1x BNC SDI
HDMI/DVI Output	1x HDMI 1。3
HDMI format	480i/p,576i/p,720p50/60,1080p25/30,1080i50/60, 1080p50/60
Frequency Bandwidth	standard with HDCP :HDMI 1.3
VGA Output	1x VGA
VGA format	640*480@60Hz、800*600@60Hz、1024*768@60Hz、 1280*720@60Hz、1280*1024@60Hz、1360*768@60Hz、 1440*900@60hz , 1600*1200@60Hz、1680*1050@60Hz、 1920*1080@60Hz
AV (CVBS) output	1 x BNC –F
AV format	PAL and NTSC
Audio output	1x3.5mm audio socket
Power Supply	5V~24V DC
Power Consumption	3~6 Watts
Operating Temperature	-10°C ~ 60°C / 14°F ~ 140°F
Storage Temperature	-30°C ~ 70°C / -22°F ~158°F
Relative Humidity	20~90% RH (Non-condensation)
Dimension	156 x 100x 36 mm
Weight	300g

Key Components

Components Made in USA for this product:

Name of Component	Manufacturer
Multi-Rate SDI Adaptive Cable Equalizer	Gennum
Multi-Rate SDI Automatic Reclocker	Gennum
Multi-Rate Dual Slew-Rate Cable Driver	Mindspeed & Gennum
SDI SPD	Bourns
HDMI ESD Protection	Semtech

Components Made in Taiwan for this product:

Name of Component	Manufacturer
DC/DC Converter	Richtek

*Key components are listed by the manufacturer and are subject to change without notice

IR Remote Control

IR remote controller is used to control output format

A. Firstly press red button ' Power' to start management interface

As Secondly press ' power' to restore default set of our device

B . Then press 'Menu'to show main OSD menu on monitor

It will show manual functions e.f   I/P scan method , VGA format, HDMI format and AV Format, Language ect

Like HDMI format :

480i/50

576i/60

480p/60

576p/50

720p@50/60

1080i @50/60

1080p @ 25/30/50/60

To execute by UP   , Down   . Left   ,right   to control the menu direction.

And press the key of 'Menu' to enter or ensure

C : PICTURE: Menu to select output   F:HDMI : Select HDMI signal as input source

D: FREEZE : Display current input signal   G:VGA : Select VGA signal as input source

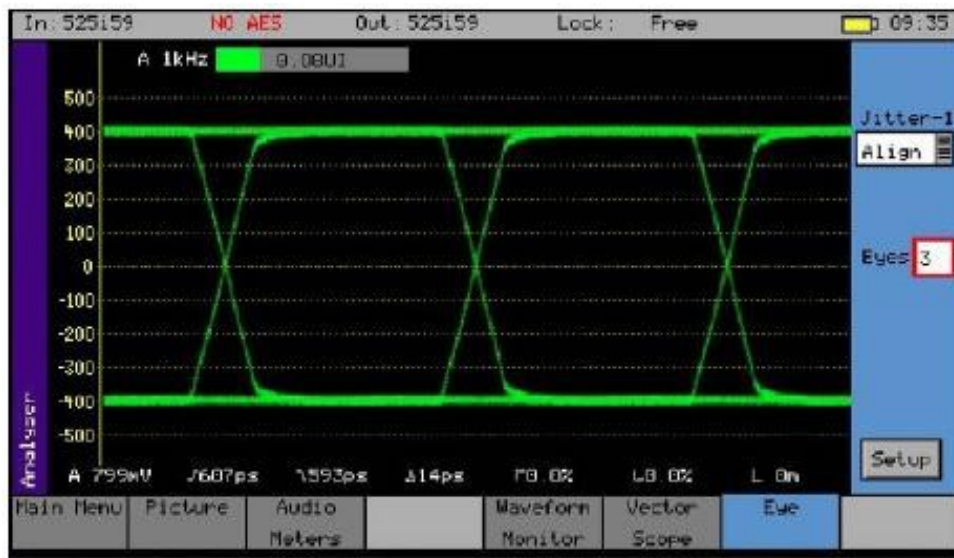E:INPUT : Show input source   H: AV : Select AV signal as input source

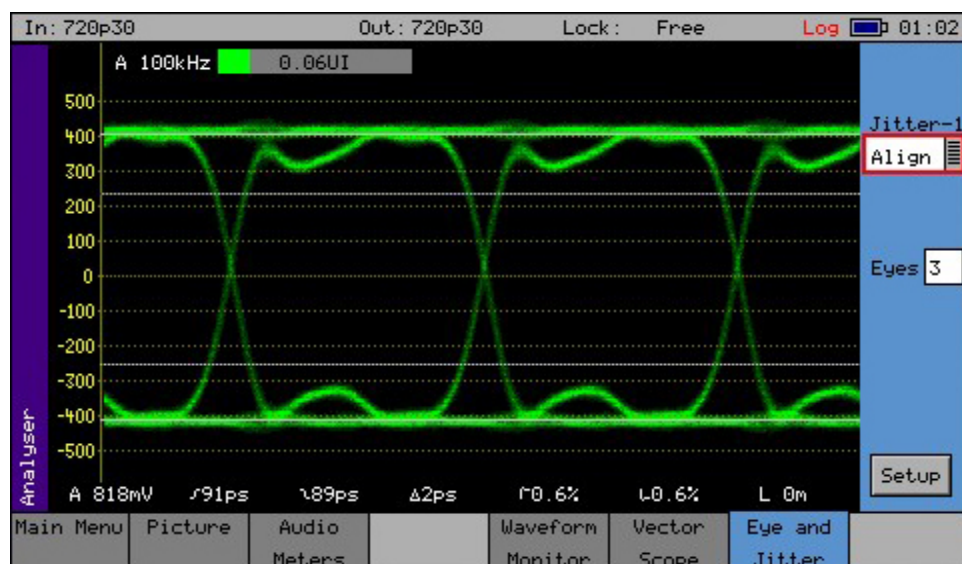**Eye Diagram**   **..**
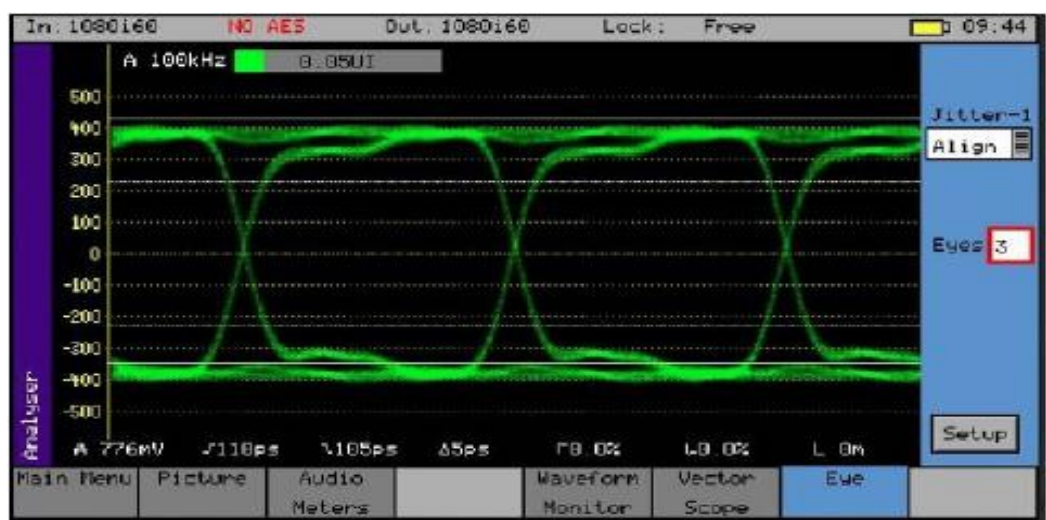
SD Mode

525i59

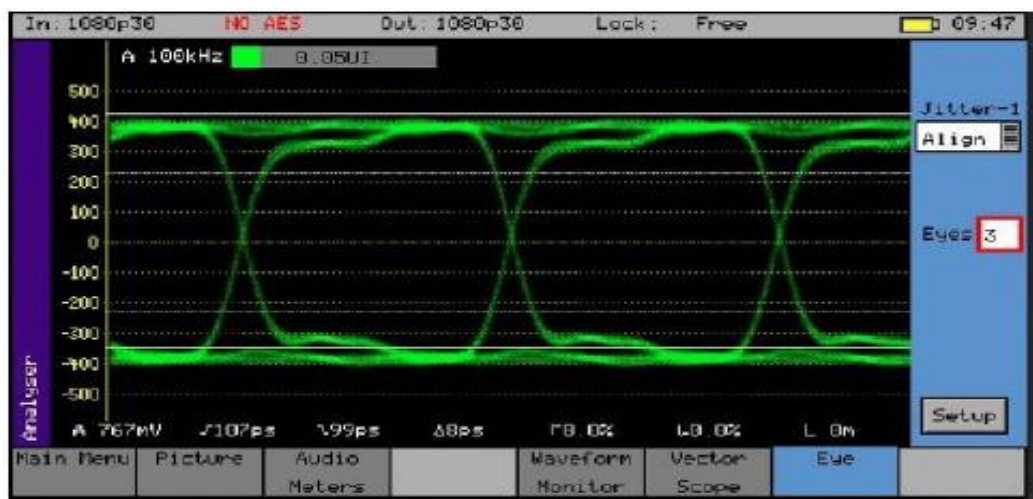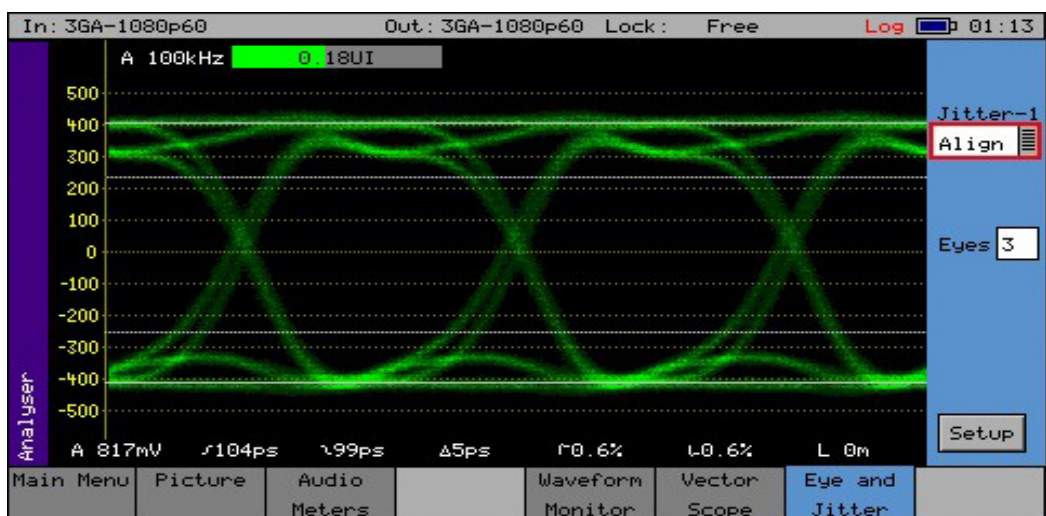**HD Mode**

720p30


1080i60

1080p 30

3GA-1080p60

| ✱ | IMPORTANT NOTE: Cable & Connector for HD-SDI Camera |

In order to achieve the <u>Best Quality</u> and <u>Long Range</u> coax cable run of up to 200m /600ft, you will need:

1. **Good Quality Cable**: We suggest using RG6 Belden 1694A <u>Low Loss Serial Digital</u> coax cable because RG6u cables have better grounding than RG59 cables. RG6 is for Digital Signal and RG59 is for Analog Signal.

2. **Good Quality BNC Connectors**: Contact Plating Gold plated pins provide exceptional conductivity.

3. **Good Quality Installation**: Do not over cut the braid because it will affect the grounding. The image will have lines and noise.

Bare Copper Conductor

Jacket   Braid   Shielding   Dielectric

Contact Plating

Gold Plated Pin
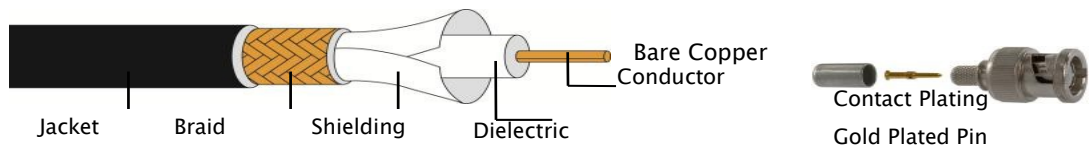
Limited Warranty ..

LIMITED ONE (1) YEAR WARRANTY AND EXCLUSIONS

Manufacturer warrants to the original consumer purchaser and not for the benefit of anyone else that this product at the time of its sale by Manufacturer is free of defects in materials and workmanship under normal and proper use for one (1) year from the purchase date. Manufacturer's only obligation is to correct such defects by repair or replacement, at its option, if within such one (1) year period the product is returned prepaid, with proof of purchase date, and a description of the problem. This warrant excludes and there is disclaimed liability for labor for removal of this product or reinstallation. **This warranty is voided if this product is installed improperly or in an improper environment, overloaded, misused, opened, abused, or altered in any manner, or is not used under normal operating conditions or not in accordance with any labels or instructions. There are no other implied warranties of any kind, including merchantability and fitness or a particular purpose**, but if any implied warranty is required by the applicable jurisdiction, the duration of any such implied warrant, including merchantability and fitness of or a particular purpose, is limited to one (1) year.

Manufacturer is not liable for incidental, indirect, special, or consequential damages, including without limitation, damage to, or loss of use of, any equipment, loss sales or profits or delay or failure to perform this warranty obligation. The remedies, provided therein are the exclusive remedies under this warranty, whether based on contract, tort or otherwise